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American Association for the Advancement of Science. Professor Miller attended both the Boston and Chicago meetings and presented papers before both meetings. S.

The American Mathematical Society held its annual meeting at Boston during holiday week in affiliation with the American Association. Joint sessions were held with the Physics and Mathematics Sections and a joint dinner brought together the representatives of these sections with the New England Association of Mathematic Teachers. Eighteen papers were read before the sessions of the American Mathematical Society and seven before the joint session. S.

Professor E. H. Moore, University of Chicago, has been elected chairman of Section A of the American Association for the Advancement of Science for the meeting to be held at the University of Minnesota during the next convocation week. M.

Professor E. J. Wilczynski, University of Illinois, has recently been awarded a prize by the Belgian Royal Academy. This would appear to be the second prize in pure mathematics awarded to an American by a foreign Academy. M.

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BOOKS AND PERIODICALS.

Plane Geometry Developed by the Syllabus Method. By Eugene Randolph Smith, A. M., Head of the Department of Mathematics, Polytechnic Preparatory School, Brooklyn, N. Y. (formerly Head of the Department of Mathematics, Montclair High School). 8vo. Cloth. 192 pages. New York and Chicago: American Book Co.

The object of this book seems to be to meet the demands of those teachers who wish only the skeleton of a demonstration, leaving the work of putting on the muscles and giving form and symmetry to the geometric body, to the student. Those teachers, too, who wish no text will find this book suited to their needs.

The book opens with a section on Logic. This feature of the book will be condemned by those teachers of geometry who believe that Euclidean geometry should be as much divorced from formal logic as are the other branches of mathematics.

The exercises are in two divisions, those under the theorems chosen to illustrate the use of them and those in general lists, to give the student practice in finding for himself the underlying principle.

The book will be found very suggestive for teachers of geometry. F.

Plane Trigonometry. By Edward R. Robbins, Senior Mathematical Master, The William Penn School. 8vo. Cloth. 153 pages. New York and Chicago: The American Book Co.

This contains only the most essential facts and principles of the subject. F.

A Course in Mathematics. For Students of Engineering and Applied Science. By Frederick S. Woods and Frederick H. Bailey, Professors of Mathematics in the Massachusetts Institute of Technology. Vol. II, Integral Calculus, Functions of Several Variables, Space Geometry, Differential Equations. 8vo. Cloth. xi+410 pages. Price, $2.25. Boston and Chicago. Ginn & Co.

This volume completes the plan of the course of study in mathematics outlined in the preface of the first volume. Integration of functions of a single variable is treated in the first eight chapters, emphasis being laid upon fundamental processes. In this part of the book the authors have added what seems to them to be a new feature, viz., the treatment of simple differential equations in close connection with integration long before the formal study of such equations.

With the ninth chapter begins the study of functions of two or more variables, being accompanied by the use of solid analytical geometry, and the treatment of partial differentiation and of multiple integrals. Also here is introduced a short discussion of line and surface integrals.

The latter part of the book consists of chapters on series,—Fourier, Taylor, etc.,—complex numbers and differential equations.

This, with the companion first volume, will form an excellent course in mathematics for the practical mathematician and will give the teacher of mathematics who does not wish to teach the subject in closed compartments a good outline for that kind of work. F.

Strength of Materials. An Elementary Study Prepared for the Use of Midshipmen at the U. S. Naval Academy. By H. E. Smith, Professor of Mathematics, U. S. Navy. 12mo. Cloth. ix+170 pages, 73 figures. Price, $1.25. New York: John Wiley & Sons.

The student of applied mathematics will find in this little volume a fine presentation of the subject. While the treatment is necessarily brief, yet it is clear. The problems are numerous and well selected. Teachers having only a limited time to devote to the subject, will do well to examine this book with a view to its use in their classes. F.

In Starland with a Three-Inch Telescope. By William Taylor Olcott, Author of a "Field Book of the Stars." 12mo. Cloth. xiv+146 pages. Price, $1.00. New York and London: G. P. Putnam's Sons.

This little volume will be found to be of inestimable value to teachers and students having the use of a small telescope. The constellations are grouped with the seasons for the sake of convenience and in connection with the forty groups diagramed is given a brief description of the most interesting objects to be seen in each group. F.

Elements of Plane and Spherical Trigonometry. By James Howard Gore, Ph. D., Professor of Mathematics, George Washington University, Author of Plane and Spherical Geometry, Elements of Geodesy, History of Geodesy, Bibliography of Geodesy, etc., etc. With six-place tables of logarithms of numbers from 1 to 10000 and logarithmic sines, cosines, tangents and cotangents from 0° to 90°, and an auxiliary table for small angles. 8vo. Cloth. vi+122 pages, +xvii+80 pages of tables. Price, $1.25. New York and London: G. P. Putnam's Sons.

This book does not differ essentially from many of the recent texts on the subject. F.

The Calculus and Its Applications. A Practical Treatise for Beginners, Especially Engineering Students. By Robert Gordon Blaine, M. E., Assoc. M. Inst., C. E., etc., Lecturer at the City Guild's Technical College, Finsbury, London, E. C., Author of Hydraulic Machinery, Lessons in Practical Mechanics, The Slide Rule, etc. 8vo. Cloth. ix+321 pages. Price, $1.50. New York: D. Van Nostrand & Co.

This is a good text, well written, containing numerous interesting problems, suitable for the student of pure mathematics as well as the student of applied mathematics.

The fundamental principles of the Calculus are established in a practical way and will be easily understood by the student. F.

Plane and Spherical Trigonometry. By Levi L. Conant, Ph. D., Professor of Mathematics in the Worcester Polytechaic Institute. 8vo. Cloth. 222 pages, +80 pages of tables. New York & Chicago: American Book Co.

In addition to the usual matter to be found in a text of this sort, the author has added a chapter on hyperbolic functions. The usual topics are treated with clearness and rigor. F.

Five-Place Logarithmic and Trigonometric Tables. Edited by James M. Taylor, Colgate University. 8vo. Cloth. xv+72 pages. Boston and Chicago: Ginn & Co.

A convenient feature of these tables is to be found in the patent index, greatly facilitating the work of finding the logarithms of numbers and functions of angles. F.

Applications of the Calculus to Mechanics. By E. R. Hedrick, Professor of Mathematics, University of Missouri, and O. D. Kellogg, Assistant Professor of Mathematics, University of Missouri. 8vo. Cloth. vi+116 pages. Boston and Chicago: Ginn & Co.

This book is a formulation of the work done in the Missouri State University following the course in Sophomore Calculus. It is believed that the work here outlined and pursued by the student will fix the principles of the Calculus more firmly in mind. A number of problems of some difficulty are inserted in each chapter. F.

The Fundamental Principles of Chemistry. An Introduction to all Text-Books of Chemistry. By William Ostwald. Authorized Translation by Harry W. Morse. 8vo. Cloth. xii+349 pages, with 65 figures in the text. Price, $2.25. New York: Longman's, Green & Co.

The author states in the preface that the object of this book is to present the fundamental principles of Chemistry, their meaning and connection free from irrelevant additions, and the book represents an opinion of the author that it is possible to work out a chemistry in the form of a rational scientific system without bringing in the properties of individual substances. The work is one of very great interest to the teacher of Physics as well as of Chemistry. F.

The Monist. A Quarterly Magazine devoted to the Philosophy of Science. Edited by Paul Carus. Price, $2.00 per year in advance.

The January, 1910, number contains three articles of much interest to mathematicians. The first is The Nature of Logical and Mathematical Thought, by Paul Carus; the second, The Future of Mathematics, by H. Poincare, translated by Dr. Halsted; and the third, Transfinite Numbers and the Principles of Mathematics, by Philip E. B. Jourdain. F.